

Series

TDAXxxxED1: 3-way, 1/2", threaded unions, NPT

Features

- 3-way valves available in 1/2"
- Small dimensions allow for easier installation
- Low Zinc anti-dezincification bronze
- Field replaceable and interchangeable internal cartridges with a wide selection of Cv (Kv) values
- 1.5 million cycles (3 million repositions)
- Packings with burnished mirror finish stainless steel stems
- Micro machined accurate parabolic, characterized plugs
- Available with NPT threads
- Made in Canada



Diverting: Female Thread on 3 Ports



ED Type Cartridge

Models

Cv	Kv	1/2" NPT
1.0	0.86	TDA0010ED1
2.0	1.72	TDA0020ED1
3.0	2.58	TDA0030ED1
3.5*	3.00*	TDA0035ED1

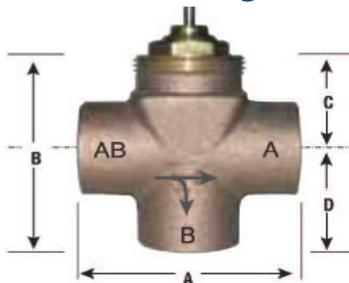


Note: Cv/Kv values indicated with a * are linear flow. All other cartridges are Equal % flow.

Technical Data

Specification		TD-ED1 NPT Series
Actuator Compatibility		All Neptronic® VM and VT series actuators
Connection		Diverting: Female Thread on 3 Ports
Thread Type		NPT
Maximum test pressure		1200 PSI [8275 kPa]
Maximum Close-off pressure		100 PSI [690 kPa]
Differential pressure		50 PSI [345 kPa] can be exceeded, but with possible water noise
Nominal Stroke		5/32" (4mm) and 7/64" (2.8mm)
Stem position		Up = flow AB-A (default position); Down = flow AB-B
Media		Hot water (rated @ 250°F [120°C]) – Chilled water – Water with antifreeze agent (glycol) max. 50%
Pressure class		ANSI Class 250 (PN25)
Material	Body	Low zinc bronze, alloy C84400 Contains less than 10% Zinc, which prevents dezincification. Dezincification can cause pores to form in the alloy and results in leakage over time.
	Stem	"Mirror – maker" burnished stainless steel
	Internal Cartridge	Seat: integral bronze; Disc./plunger: EPDM/brass; Spring: stainless steel; Packing: double EPDM
Country of fabrication		Made in Canada

Dimensions & Weight

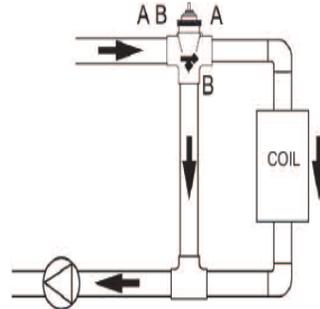


Size & Weight	All Models
A	2.50" (63.50mm)
B	2.30" (58.42mm)
C	1.13" (28.70mm)
D	1.20" (30.48mm)
Weight	11.3oz (320g)

Mechanical Installation: 3-Way Diverting Valve Body

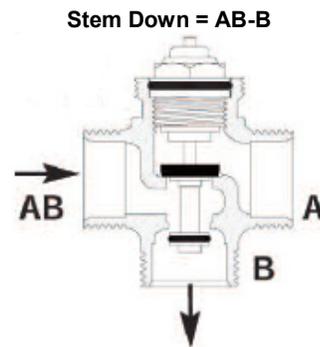
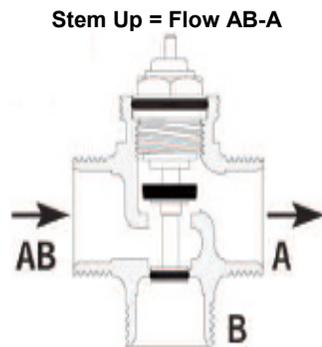
Valve Body

Install the 3-way diverting valve body on the supply side of the coil. The water diverts in the valve and mixes in the T. The flow enters **AB**, the common port. Connect the side port **A** to the coil's supply and bottom port **B** to the bypass around the coil.



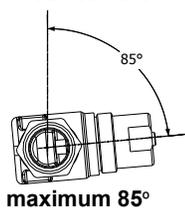
Stem Position

The position of the stem indicates the flow of the water. If the stem is up, water enters from port **AB** and flows out through port **A**. If the stem is down, water enters from port **AB** and flows out through port **B**. The stem up position (flow AB-A) is the default position.



Note: Since the valves are normally open by default, ensure that the Neptronic VM and VT actuator's DIP switches are set to Normally Open.

Orientation



Caution: Risk of leakage. Do not install valve at an angle of more than 85° from a horizontal position.



Caution: Risk of damage to the valve. Install a strainer upstream from the valve to prevent damage.

ED Type Cartridge



All valve body assemblies are service and maintenance free. They possess interchangeable internals such as replaceable cartridges for specific applications with variations of parabolic or linear characterized globe plungers. The Cv (Kv) values can be changed by changing just the cartridge. It does not require removing the valve from the line. ED type cartridges are used for 3 way diverting valve bodies.